Fusion and Annihilation of Solitary Waves for a (2+1)-Dimensional Nonlinear System

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In this paper, a new projective equation is used to obtain the variable separation solutions with two arbitrary functions of the (2+1)-dimensional Broek-Kaup system (BKK). Based on the derived solitary wave solutions and by selecting appropriate functions, some novel localized excitations such as fusion and annihilation of solitary waves are investigated.

Key words: New Projective Equation; (2+1)-Dimensional BKK System; Fusion; Annihilation.
PACS numbers: 05.45.Yv, 03.65.Ge